

FRASC Meeting Summary

Attendees: Mike Jani (MRC/HRC), Bill Stevens (NMFS), Tom Heot (NRCS), Mary Klaas-Schultz (FRAP), Steve Schoenig (DFG), Matthew Bokach (USFS-FHP), Toby Perry (Stewardship Council), John Melvin (CALFIRE), Fraser Shilling (UC Davis), Kelly Larvie (FRAP), Lisa Fischer (USFS), Roy Peterson (DWR), Chris Keithley (FRAP), Stephen Smith (NRCS), Jim Quinn (UC Davis), Rich Walker (FRAP), Jim Spero (FRAP), Justin Johnson (FRAP), David Brown (CSU Chico), Tiffany Meyer (FRAP), Greg Giusti (UCANR), Mark Rosenberg (FRAP), Jim Suero (California State Parks), Michael Perrone (DWR), Kerri Timmer (Sierra Nevada Conservancy), Staci Heaton (Regional Council of Rural Counties), George Gentry (Board of Forestry), Nicholas Martin (Sierra Business Council), Cyndi Hillary (Regional Council of Rural Counties),

I. Agenda

- Introduction and Overview
- Meeting Topic and Goals
- Overview of 2010 Assessment
- Mike Jani – President and Chief Forester for HRC
- Break
- Group Discussion: Sustainable Forestry in California
- Meeting Summary, next steps, next meeting

II. Introductions and Overview

- Sponsors of today's meeting are:
 - *California Department of Forestry and Fire Protection (CAL FIRE) / Fire and Resource Assessment Program (FRAP)*
 - *USFS Pacific Southwest Region State and Private Forestry*
 - *Natural Resources Conservation Service (NRCS)*
- What is the point of FRASC?
 - *Stakeholder outreach to all who are interested and concerned about California's forests and rangelands*
 - *Inviting you to inform us about your concerns*
 - *Forest Action Plan presents opportunity to reach common ground on forest topic*

III. Overview of the 2010 assessment

- In 2010 assessment, sustainability was defined as a working landscape where ecosystem service management balanced with food, fiber, energy, and other economic values essential to thriving human conditions.
- Four topics that were covered and Key Findings:
 1. Impacts to forests of recent land use/cover changes:
 - Permanent land change in mostly grassland and shrub
 - From assessment of pop. growth, we know that most forest change due to increase in WUI
 - Disturbance patterns have changed
 2. Forests and Woodlands socio-economic pressures
 - Private and public forests have increased inventory volume
 - Loss of working forests and woodlands
 - Total carbon storage increasing
 3. Trends in the forest products sector:
 - Major contraction of economic activity
 - Ownership pattern shift from corporate to private
 - Timber harvest plans increasing in avg. acreage
 - Non-commercial timber management plans increasing in numbers
 4. Program assistance to landowners and communities:
 - Reducing risk of wildfire and pest damage
 - Restoration of impacted areas
 - Improving forest stands
 - CALFIRE providing technical assistance to landowners

IV. Guest Speaker Mike Jani President and Chief Forester for Humboldt and Mendocino Redwood Company

- Talk situated around three questions asked FRAP:
 1. How do we incorporate sustainability in everyday business practices?
 2. What does sustainability mean?
 3. How do we know it is working?
- Background on Humboldt Redwoods Company and Mendocino Redwoods Company:

HRC and MRC started in the California forestry business industry in 1998 when Louisiana Pacific Corporation left California and auctioned off all their properties and facilities. The Fisher family (of The GAP Inc) was looking to divest some of their assets so looked to timberlands as they felt they were good long-term investments. With a lot of help and advice, they made a bid on the LP lands and won them at auction. These were the Mendocino Redwoods lands (~ 232,000 acres) in Mendocino and Sonoma counties. After about nine years in Humboldt county, the Pacific Lumber Company in Humboldt county began to have problems operating profitably. MRC initially attempted to buy the company, but Palco turned them down. After Palco declared bankruptcy, MRC prepared a bankruptcy plan which the State of California approved. A judgment was approved and MRC took over the business in 2008 – coincident with the world economic collapse. This added ~208,000 acres in the Redwood region of Humboldt county.

The initial goal was to operate a successful business while at the same time managing productive timber lands with high conservation values and high stewardship values.

- Sustainability

Everyone is all over the map when they use the term sustainability. Would like to steer away from using word sustainability because finds it is misused very often. Focus instead on the things we do and defining important things for the management of private forest lands.

- Social Trust

In each case with our acquisitions, we took over the companies under very adversarial conditions – Louisiana Pacific (and Palco) had maximized profits at the cost of forest health and community well-being. Communities had been turned upside-down over the debate of forestry. So – another initial goal was to gain the *social license* to practice forestry in the communities where these forests are located.

It became immediately evident what those primary issues were that needed to be addressed immediately to gain social trust. Start with MRC experience:

- 1) Eliminated clear cutting as this was the single biggest issue both communities.
- 2) Began a process to rebuild overharvested inventories.
In the history of both properties, there was a history of aggressive overharvesting. It was clear that to run a successful business and to have the cash flow to survive in the long term, we had to start growing more timber than was being harvested on the properties.

In the communities there had been a steady decline in the forest industry – in jobs and infrastructure. The communities pointed to the fact that the aggressive overharvesting had been at least part of the problem.

MRC (and HRC) picked a number out of the air – after doing some studious understanding of historic inventories that were handed to them from both companies – and decided to set a limitation at that number for at least the first decade. Then we would get on the properties and begin to understand what we have purchased – and then arrive at what they believe to be a sustainable harvest level.

- 3) Protection of old growth resources was critically important early on. At MRC, we tackled it by defining what old growth was in terms that both the community and our foresters- biologists could agree on. Old growth would be protected from harvest. We also went so far as to find areas on the property that had unique old-growth habitat (stands or groups of stands) and set protection measures for those areas.
- 4) We were asked to stop using herbicides completely in Mendocino county. We have not been able to completely stop, but we have developed an herbicide policy that we have shared with the communities that lets people know why we use them, where we will be using them, and our rationale for eventually not having to using them.

One of the biggest mistakes we made when we took over MRC (which we changed when we took over Palco) is that we had inherited some THP (timber harvest plans) that contained scheduled clear cuts. We went ahead with them, as the loggers were already out there working. The result was instant media coverage of MRC clear cutting. There were people chaining themselves to GAP stores in New York City – with pictures of us clear cutting. This was very problematic for us.

As a result, when we took over HRC, we immediately stopped all cutting – we went out with staff and re-marked the clear cut units for selection (partial) cutting. We also identified old growth trees on the properties that were going to be harvested and removed them from harvestable inventory.

So – on the social side we at least had a template that seemed to work. It was critically important to establish a track record. You can *tell* people what you are going to do – but if they don't see you doing it, say two or three years into the business, it will do no good.

- Agencies

At the same time (that we were developing social license) – there were pressures from the agencies that oversee our business to get permits to operate on private timber lands in California.

This can be challenging as agencies at times don't agree amongst themselves on what they want you to do. There was a lot of pressure from both state and federal agencies to reignite a process the LP had started – the development of a habitat conservation plan (HCP). This was at the same time that the Coho listing was heating up and NMFS was weighing in on a lot of THPs where Coho habitat existed. So we took it upon ourselves to at least begin the process of working on the HCP.

The water quality control boards (the regional boards) had also just been granted new powers of authority through legislation to review THP and have some effect on their approval. They came to us with a not unreasonable request to look at our road systems and to create a systematic approach to sediment control. We were very early on in the business successful and encouraged by help from the North Coast Regional Quality Control Board staff in establishing what we thought was a reasonable approach to correct road problems over time – in recognition of the fact that you can't do it all in one year with a few thousand miles of road.

We began a road inventory and a prioritization of road fixes that were tied to stream classification work that our fisheries biologists were doing and watershed assessments where we found where the critical habitat was and how close road systems and crossings were to that critical habitat. This allowed us to prioritize our work.

At the same time – LP had submitted a sustained yield plan to address long-term growth harvest and yield on the property. We were asked to get to some sort of calculation with our new management theme about what the long term projections of growth and harvest on the property were going to be.

The same thing happened with Palco (now HRC) lands. We felt the need to completely re-inventory the property – to put it in terms that spoke to our type of management and what the obvious outcomes of our kind of management would be.

We also wanted to address the very real risk and constraints that the agencies were placing upon us in terms of what kinds of protection measures they wanted in certain areas of habitat and what kind of habitat development they expected to see across the property in order to come to an agreement of what a HCP would look like.

- The Fisher family and the Forest Stewardship Council

There were all the challenges posed by gaining social license as well as agency license in the beginning. To add to those challenges the Fisher family that owned the company wanted to have a third party assessment done of what the MRC and HRC management was proposing for the property. They felt that the Forest Stewardship Council forest management guidelines best fit what they thought good forest management would be.

That was a third layer of rules and regulations. The FSC language calls them *standards* and *indicators*.

Both properties are now FSC certified. Going through that process had both challenges and rewards.

- Addressing all three layers (social license, agency regulations, and FSC certification) all at once:

With the elimination of traditional clear cutting, we realized there were stands that needed some form of rehabilitation. We could not bring them back to health by doing what had been done before (picking them over etc.). In Sonoma and Mendocino, there was a complete hardwood tan oak infestation where conifers had been mined out of the stands. In tan oak challenged acres, we began a systematic rehabilitation of the acres. Of the 230,000 acres, that was about 90,000 acres that needed “tough love”. That became part of our business plan. We dedicated a certain amount of our income to rehabilitate acres every year.

On the remaining timber lands, that were well stocked with conifer, we made a commitment to the community to do uneven age management, either through single tree selection or group selection or transition if they were young enough stands – or commercial thins. This was to regain social license. But this has an effect on the bottom line – because you’re visiting more acres, you’re harvesting less, and we had a certain amount of money that we had to generate to be successful and a certain volume that we had set to make our business plan work.

At the time we started – the only guidance we had was using the southern sub-district rules for selection – that was the Santa Cruz mountain rule – the 60/40 cut. We largely worked using those constraints. We thought we would re-enter the stands every ten years, and we estimated what we thought the impacts from that would be.

The rebuilding of inventories took concerted effort – and financial courage. We had to think through – these lands might be growing 100 – 120 million feet a year, but *where* is that growth occurring, and *where* is the harvestable inventory located on the property today – and *how much* is available for harvest? We set up a *defacto* number that we thought was okay until we could do a re-inventory. And we began a systematic inventory.

When talking about long term planning across California to help private landowners – a better systematic inventorying system that could be relied on for making business decisions about inventories – that would be a very high priority.

- Timberlands as investment

We found that it requires capital infusion to provide a buffer. When you are trying to service the debt – if you don't put enough capital into the beginning of the business you are saddled with so much debt that you can't harvest enough to cover the debt.

It takes patient investment in timberlands to achieve that. We were fortunately a well-capitalized business due to the Fisher family. There are other models – we don't know whether they will work in the long term yet.

The private-public partnership model, with public funding and private funding put toward generating enough capital towards acquisition of timberlands in California and run them as businesses is another viable model. But is this an appropriate use of public funds? Should public funds go to the protection of higher value forest lands? Or is this the best approach to maintaining private forest lands – or working forest lands – in the state.

- Herbicides

We didn't know much about the herbicides we were using – but we knew that people did not like us using them. We had to ask some questions:

- 1) What are the herbicides that are largely being used on the North Coast? Which ones are most effective? What are they used for?
- 2) Are there any alternatives? If there are, how are we going to measure their efficacy?

We did some trials using things like eucalyptus oil, neem oil, covering tan oak stumps with plastic and girdling tan oak stumps. We did the research and made the effort to measure so that if they worked, we could use them and we would know the cost of using them. And if they didn't work, we explain to a very skeptical community why we needed to use chemicals.

Today – we have drastically reduced the volume of chemical we use. We have made a commitment (and we believe in it) that we have a need for the use of chemicals one time. We think that if we manage appropriately we can convert tan oak challenged acres into conifer acres, and keep them in conifer acres with the use of chemicals one more time only.

This resonates with people – but it must be measured, and you have to know about it. We have been successful looking back – of those 80,000 or 90,000 acres of tan oak, we have treated 60,000 to date. Palco did not have the same tan oak problem.

- The challenge of working with agencies

This gets back to metrics– or measuring. We launched the writing of a HCP at the same time we had to look at the way wildlife habitat was reacting to our management. Were we building or contracting what wildlife managers expected for us on the property?

This speaks to how properties are assessed. When you are looking at one ownership property, which might not be one full planning watershed – does it matter what is happening in one little piece of the watershed when you don't know what's going on in other parts of the watershed? This seems especially relevant in the Sierra – where ownership patterns are patchy between USFS and private – the railroad patterns of ownership.

- Forest Stewardship Council

We also had to deal with our inventory and understanding what we are doing which was informed by the Forest Stewardship Council (FSC). They have expectations and standards for what they want to look at when they audit a property. FSC is a three chambered group: the environment chamber, the economic chamber, and the social chamber. They work on consensus for the development of their standards.

FSC is different from other certification schemes and processes in the United States in that the social chamber and the social aspect of FSC standards is quite different. Non-FSC standards mainly look to laws and regulations to fulfill the social standards. FSC standards require engaging a broad spectrum of stakeholders. This means reaching out to the communities where you work, understanding their issues, and recording and monitoring what their issues are and what you did as a forest owner to address the issues of stakeholders.

This is an important monitoring tool. It's difficult to pinpoint what our impact has been on a community – the change that has been driven by the interactive conversations we've had with communities. We work watershed to watershed relative to work resource managers are doing. Different watersheds have different issues. Focusing on what those singular issues are in the watersheds might elicit a different change in management on both public and private lands in the watersheds.

FSC also requires a management plan. They have very clear guidelines for what needs to be in the management plan. This drove how we approached fulfilling what the agencies were asking of us. Habitat conservation plan (HCP) is just one element of an overall FSC management plan. Sustained yield plans (SYP) (FPR "Option A") – modeling what your harvest and sustainability is – we decided to lump those together. We also decided to throw in the protection measures we had absorbed with the agencies and with the FSC standards.

We put this all in one document. In the near future we will have a HCP tied to a PTEIR (programmatic timber environmental impact report). This includes water course crossing constraints – and is a master plan. In it are metrics that we will use to monitor across the

property. It also has extensive landscape plans that we can share with the community. These show where we will harvest and when we will harvest so they can assess cumulative impacts in terms of acres covered, habitat change, volume growth. We think this is a critical tool.

Hopefully there will be cross-referencing of information between us and agencies so that reports we give you do not conflict with what agencies report.

One of our mantras is “What matters gets measured”. So we provide key metrics to the public via our website:

- 1) Our inventory. This is unusual – but over the course of our business we have grown the inventory by over a billion board feet because we have stopped over harvesting.
- 2) The number of acres in our planting and rehab program (tan oak to conifer)
- 3) Sediment control. This is a key piece of our management. We keep track of the cubic yards of sediment moved in the removal of crossings. We have over a million cubic yards of sediment controlled. We dedicate money every year for this work, but with this metric we have been able to get grant money for these projects.
- 4) Inclusive of that work is fish passage barrier removals. To date we have removed 37 major barriers on both properties (primarily MRC) which has freed up 20 miles of fisheries habitat. This type of thing really resonates with the public – removing barriers and bringing salmon back into streams
- 5) Habitat conservation metrics: spotted owl territories, rare plant populations. Having this data will be beneficial to agencies at some point.

- Land Ownership and Management

There are three major private forest land ownership categories in California:

- 1) Small non-industrial
- 2) Industrial
- 3) Conservation/public funded acquisitions

About 50% is small non-industrial. The Industrial timber lands are mostly owned by families or privately held. The remainder of forest lands is in conservation/publicly funded acquisitions – such as 60,000 acres purchased by the Redwood Forest foundation and put in a conservation easement. Those three ownerships are what we will be working with in the future and should inform how we collect and disseminate information and how we prioritize information in the future.

Q and A Session with Mike Jani:

Question: *How effective is Forest Stewardship Certification, does it translate into people making purchases of timber that is forest certified?*

Mike: Generally people are becoming more aware of certified materials – whether they are forest products or other types of products. For forest products, the only markets we have measured that there is some recognition is in the Bay Area. We have started an “FSC Only” or “FSC Pure” marketing to cover our main business associate – Home Depot. In Home Depot in the Bay Area, they want all their Redwood and their Doug Fir to be FSC products. To date – there are very few opportunities for price premiums on FSC products. Shelf space is the real opportunity that drives FSC managers. People in big box stores that want FSC products will work with you to get your product on the shelves. This has been critically important from 2008. We were losing shelf space to imports – if you can keep your shelf space, that’s more important than price premiums.

Two Questions: *1) In your long term inventory management are you looking at climate change forecasts, is there a practical way to incorporate that? 2) In the certification process are invasive species included as a metric or anything?*

Mike: I’ll answer the second question first. Not so much a metric. In the event of an FSC audit, if they should find an aggressive exotic infestation that you were not addressing, there would be a “corrective action request” likely issued. FSC is not dogmatic about herbicides. They recognize that herbicides have a place in forest management. For exotics, they allow the use of herbicides. They do restrict the use of some herbicides, depending in what they are and where they are used.

Global climate change – who do you believe? There is some question as to what the effects on forests will be. It depends a lot on where your forests are located. We were asked early on to assess the effect on our forests. We came to the conclusion that it may actually be a benefit for redwoods. But – there is one vulnerability and we have changed our management as you move to the east side of our property, toward the interior. We are assessing areas where we might have aggressively tried to recapture hardwood stands -- where there might be natural hardwood stands. We are also assessing our road system – and the increased potential for wildland fires. All this gets added to our landscape plan.

Question: *We have a lot of rules and regulations in California (i.e. Forest Practice Rules) that promote sustainability but don’t use the word. Is it too large a bridge to build to say that since we comply with the rules that we are in effect practicing sustainability?*

Mike: I don't think so at all. Many forest landowners would not advocate a changing of the regulations. They think the regulations are very sustainable well justified. It's not the regulation, but how it is being implemented – the process of the regulation is the thing that's got us all balled up. But what is the point of declaring our regulations as sustainable? Where are you going to go with that? What does that prove to anybody?

Question: *Would there be a chance to utilize the same system that they are using in Wisconsin, where FSC gives them blanket approval if they have complied with the rules?*

Mike: definitively, there would be. If you put the FSC rules alongside the (California) forest practice rules (FPRs) there would only be a couple of additional things required (of the forest practice rules) – to make them compliant – the bulk of which would be addressing the social issues. The public review process for compliance with FPRs does not meet up with the same standard the FSC requires for public stakeholder input. The Jackson State Forest planning process is a good example of how to include public outreach into the process. So, it could be done, but the burden would be on the state as the state would become the manager of the program.

Question: *Forests provide a lot of ecosystem services and social values such as high quality water and fish, things like that (Mike – expected public trust resources). You've put a lot of your company's money into this, and you've gotten some funding from the outside to help address these things. In your opinion, what are the key social values that public funds should be focused on in supporting ecosystem services on private forest lands?*

Mike: The easy one is unusual and rare timberlands. There are irreplaceable and high value forest lands that are challenged and at risk. The best use of funds would be to protect and maintain those.

The second one is maintaining high quality water off of both public and private forest lands.

To a lesser extent, however we deal with the carbon market and carbon storage.

Greg Giusti: *I would suggest that fish, water, and open space be considered commodities when we are talking about forest products.*

Greg Giusti: *I would like to expand the term forest practices to include all practices that go beyond the scope of the board. I think given the urbanization of forests that it would be beneficial to include all those practices that are under the purvey of the counties.*

Greg Giusti: *I am sure that most would agree that "sustainable forestry" is only one component of a broader concept of "sustainable forests". My comments were thinking about what the*

group is doing here. There is so much regulatory oversight on properties that are harvesting timber, and yet other forest practices not directly related to cutting tree, such as building roads, conversion, sucking water out of the creek to grow who knows what – all these are ignored. It would be valuable for the next issue of the FRAP report to expand the concept of how are forests are being used in California and that growing and harvesting trees is only one of many different uses. I can make an argument that salmon and steelhead are as much a forest product as wood. I think that if this document is to be grounded in the nuances of what we all know and what we all work with, and if we want it to effect policy, whether it's addressing some of the regulatory issues Mike has addressed or whether it's expanding our scope of regulatory oversight on some of these non-timber issues, I think there is value to talking out loud about the values that I shared with the group.

Mike's Response: He thinks that these things may be going on to a degree that would be detrimental. There is certainly a debate (enough so) that we need reliable information to ascertain whether things like conversion is a big issue in the Redwood region versus the Sierra foothill region. I don't know that we have accurate information. At times it's hotly debated. Having reliable information that informs all of us would be helpful from a policy stand point.

Greg Giusti: We do have information on the North Coast looking at ex-urban immigration into forest lands. You don't just measure some of these things by acres. To use your example, conversion of forest lands, conversion of acres is one layer of the onion. Then there's diversion of water; there's road building; there's undersized culverts; there's all these other activities that go to support what the conversion was meant to do. Similar in the Santa Cruz Mountains, the urbanization of forests. I think one could argue that there are so many activities going on in California's forests that effect sustainability, define it any way you want, of how a forest works, that it is important for this group to think about that. Think about that and how we might use this report to not only support the concept of the kind of active forest management that MRC and HRC are trying to do but also recognize that there are other practices in the forest that are effecting this loosely defined term of sustainability. Mike and his company have changed the tone and lowered the heat of what's going on in the on the North Coast – but at the same time, there are all these other things going on around them that indirectly effects the good work they are trying to do.

Bill Snyder:

I would like to address the question relative to whether or not some of these other public trust values in the forest have been recognized. I think they have (been recognized) within the regulatory structures that we put forth. Because those rules are targeted on maintaining water quality, maintaining wildlife habitat, and other sorts of things. But it a regulatory structure which basically is applied to overlay the landowners' use of that land and limit what they can do in order to protect those public trust resources.

The concept that Greg is putting forth is a good one. How do we assign a market value that would be attributable to the landowner for providing that protection, for creating that habitat, for doing those sorts of things? That would be a huge step and I think everyone is looking for that Holy Grail – trying to figure out how to monetize and provide some monetary incentives to landowners to do these things. But against a regulatory backdrop which is designed to protect those public trust resources, how do you monetize that to create that additional incentive? And what do you want the landowners to do in addition?

To say that we are not recognizing those values probably isn't true, from a policy perspective, the way we have recognized them is to prohibit the landowner from impacting them. It's not like in other states that have no regulatory structure and they are looking at ways to provide incentives for landowners to maintain wildlife habitat and they come up with avoided cost strategies to compensate the landowners. In California, we just say – hey, do it – and this is the way you're going to do it – and you're going to incur the costs. We have recognized a lot of the values and we have chosen a regulatory framework to get there as opposed to an incentive management plan. That would be huge paradigm shift if we were to go a different path.

Question: How could CSU and UC contribute?

Answer: Help to define the priorities for state. Clearly define a research role on how to frame the priorities. Identify research needs and data and information gaps.

Rich skipped some important information:

- Major upheavals in the communities that are most involved in the forest sector. A number of things are working against keeping working forests working
 - Market have been down, we have not a recession like this in quite a while. There is no prospect for when the price of wood is going to go up.
 - The lack of jobs
 - The lack of wood coming off the forests means that a lot of mills are shutting down.
 - The infrastructure is shutting down (really big deal)
 - Intergenerational issue that most of the landowner are getting older, what will the new generation do in terms of forest management?

Comment from Mike Jani: Right now with the diminished mill capacity in the state, we are importing 70% of the wood used in the state from elsewhere, mostly Oregon, Washington and British Columbia. Our own mills are only producing 30%. By our calculations, with most of the mills running at reduced capacity, one shift where they could run three. We have the capacity right now, without adding any new mills, to produce about 50% of the wood used in

California – at the current consumption rate. There's a big upside there – having an upturn in the economy, having wood become profitable to harvest again. There are a lot of small forest landowners in California who don't have the economy of scale. Their Douglas fir tree standing in the woods is not at a break-even point if they bring it to the mill, by the time you add in the cost of going through the regulatory program and then the cost of hauling it to the mill.

V. Presentation by Chris Keithley aimed at opening up the discussion of sustainability:

- Before we begin the discussion on sustainability, I'd like to address a comment from the previous session. There was a question about how CSU could participate. I'd like to comment on that as we also have some people from UC here as well. There is certainly think there is a big role both CSU and UC can play. It catches on what Lisa brought up in the beginning – the purpose of our assessment is in large part how we define our priorities for the state and how we integrate those priorities across agencies. Both UC and CSU have a good opportunity to help us define our priorities. There is clearly a research role for both CSU and UC for addressing topics related to forest health or many of the threats to our forest system. How we frame the priorities is really an on-going process.
- For the sake of discussion, I'd like to provide a working definition of sustainability and recognize that the use of the forest does have a broad range of services that are provided based on the ecosystem services that are produced, not just on the commodities from timber but a broader range of services that we know that forests provide. Most importantly recognizing in the definition that sustainability embodies the idea that the current use of the forest must preserve the same level of use for the next generation.
- The core concept of strong sustainability is that the benefits of nature are irreplaceable and that the entire economy is reliant on society, which in turn is entirely dependent on the environment.
- Through sustainable management, forests can contribute to the resilience of ecosystems, societies, and economies while also safeguarding biological diversity and providing a broad range of goods and services for present and future generations
- Forces that act against sustainability
 - Natural disturbances that act against sustainability
 - Globalization
 - High imports of wood products
 - Biomass energy demand and what that might mean for forest
 - Carbon storage under AB 32 might be an opportunity for management
- California regulatory setting

- Much of our forest lands are managed by our federal partners

VI. Group Discussion

- What does sustainability mean?
- How close are we to sustainable, and how do we get closer?
- How do we know?
- Do you find that what matters gets measured?
- Are there things that get overlooked?

Bill Snyder: One of the challenges is figuring out where we are now. What is the current level of inventory under current management practices (i.e. baseline)? What are the different management strategies being deployed by the various landowner groups? What is the baseline for sustainability under current management practices? If you did nothing what would be the trajectory for sustainability over time. Thinking about landowner behavior in terms of the forest practice rules, only half the land is covered by 10% forest cover and about half of that is available for commercial timber production and about half of that is private and subject to the forest practice rules and of that piece only half of that is actively managed. On the non-industrial private side the land is pretty much passively managed. A very small piece of California lands are subject to the California forest practice act rules. What is the behavior of landowners who have little use for douglas fir and how does that impact behavior. That is, how does climate change, wildfire and drought overlay that?

Chris: We certainly try to represent the baseline in our assessment. It is difficult to maintain current information on the baseline and being able to integrate that with baseline information that landowners hold.

Lisa Fisher: What do we really want it to look like, better describing the future conditions? Factors that drive what the forests look like are mainly socioeconomic or political etc. More or a focus of what... How do we build consensus of what future conditions would look like.

Toby: It's tying it straight back to where is timber going and who is buying it. The infrastructural component ... where the biomass facilities are as way to start thinking about where forest products are going and how forests can be enriched.

Chris: That clearly highlights a strategy for the next report. Would we have the infrastructure in place to utilize what could come off the forests?

Mike Jani: The infrastructure drives your management options.

Steve Smith: A land based plan is the most powerful document that you can have. I think that is one of things we need to overlay in terms of assessing our forests in the state. I use a the term very loosely...a timer harvest plan, a sustained yield plan, a conservation plan etc., identifying the issues the inventories. The set of folks who have gone through the process have reached a baseline and we need to reach out to them.

Chris: Many of our smaller landowners don't have that.

Steve: That's correct and it is something that needs to be encouraged so they can get that information

Mike Jani: Understanding how the current inventories overlay on the regulatory structure, and how it interacts with their ability to do things on the property. That way we can understand if we are hamstringing the landowner since our desired future outcome is totally different from. What percentage of our land is regulated so that it is no longer optimally growing timber?

Steve: That is a part of that planned process of understanding what you can and can't do.

Rich: CAL FIRE, NRCS and USFS have come together to create the California cooperative forest management plan we are trying to have one stop shopping for landowners to have their ideas of how they are going to manage their lands. The intent is to reach out to landowners to establish a land management plan. It should be much easier to apply for CFIP funds and other funds to manage your lands.

Bill: There is a bigger scale that needs to be addressed when thinking about sustainably. A time scale is at issue, there is a consequence for those landowners who do not engage in terms of climate change and disturbances. It's important to define the scale of sustainability will be.

Chris: In the assessment, we didn't really focus on individual landowners, but focused on landowner groups throughout the state. We used a nested set of spatial units based on hierarchy (the spatial unit tends to vary depending on the resource at hand). We have looked at the Montreal process in the past for the different facets of sustainability. Through the 2010 assessment, we did not really have a set of sustainability indicators.

Fraiser Schilling: The process that you are going through pretty much is the first step in that process. It helps to go through each formulation of the indicators.

Chris: In the past when we used indicators, it resulted in an overwhelming number of indicators. It left us more confused than maybe we started with.

Jim: Are you still thinking of using the Montreal indictors?

Chris: We are still planning on doing that for that underlying framework. It will be a broad enough framework that we will try and measure ourselves against other states and countries that have used that process.

George Gentry: Are we going to have an indicators group that we is going to narrow down the set of indicators.

Chris: we will definitely use this group to vet the core group of indicators and take input that way and have some public content as well.

Rich: It's definitely something that we would like to come out of this meeting. Oregon had set of indicators could that we could use in a similar setting to us.

Question: The scale of the indicators has an issue with time, what is sustainable in 5 years? Be explicit about the timeline for indicators. Be clear about the timeline.

Question: Have we reached out to the private landowners to see what they thought about sustainably?

Chris: In the past assessment, we have had public outreach, and we welcome thoughts.

Jim: We are doing an agro-ecological sustainability study. There are a number of sustainable frameworks the food industry is using at UC Davis.

Lisa: Are you looking at adopting a definition for sustainability?

Chris: we plan to have a working definition of sustainability in our next assessment

Mike Jani: When you read that definition and see that picture you would get a much different view of sustainability than those of us who manage redwoods for production. When defining sustainability it will end up changing policies but if you survey different land managers they will have different sensitivities to notions of sustainability.

Rich: We know that the FSC is one of the two premiere certification programs in the world. How many acres in California are considered ok under the FSC standards? There is also the sustainable forestry initiative SFI the competitor to FSC. We could use the lands under this type of certification as one metric telling us how we are doing.

Carrie Timmer: The purpose of the slides seemed more like a desired outcome statement? How were you intending on using that? It seems to me like more of an outcome state rather than defining what sustainability is or is not.

Chris: It just intended to initiate the discussion; it is not intended to be adopted in any complete way.

Question: Is the target more sustainable forestry or sustainable forests? This quote describes forest outcomes which may or may not describe sustainable forestry practices.

Chris: I think it's more of the latter.

Bill: I am thinking about sustainable as being about the triple bottom line. I am thinking about sustainable in a biological sense; what is biologically sustainable on these landscapes overtime. Is what we have now sustainable into the future. What will we have the social licenses to influence? Will we have the social license to apply the management prescriptions that we think will improve a particular landscape? Do we have the infrastructure to enforce those ideals? Need to look at it from an ecosystem piece. I am struggling with what and how we go about this question of looking at what is sustainable? I don't know if can look at temporal and spatial context to give the answer for the state as a whole. I don't know even if we predict the biomass available is not sustainable, we may not have the social license to correct any of this. I am kind of thinking what is going to drive most of what we consider sustainable is climate change. If you look at some of the modeling we may not ever be able to sustain the level of inventory currently on the landscapes. What is it going to look like 50 years from now if we don't do anything?

Chris: We need to give a little more thought on how we invest in sustainability. I would like to give some thought to this; how sustainable is our fiscal approach to this? We need to give some consideration to how we will actually fund these efforts. This really is probably a topic for another meeting. Highlighting the investments that are made both in private and public lands and then looking at something of fiscal plan that gets us to sustainable.

Steve: That gets us to dealing with the loss of working landscapes, show why we are losing those landscapes. The assessments are powerful when they focus on informing policies that keep working landscapes as working landscapes. If we start showing why we are losing those working landscapes (e.g. economics, land use planning)...there could be incentives to keep it in working landscapes. Once the industry left everything collapsed and it was back to the old way and we are in the process of collapsing.

Question: How are you guys going to reach out to land management agencies? Also, I think you need to be more specific about the definition of sustainability.